United States
Office of Personnel Management

Agronomy Series

GS-0471

Additional Available Guidance

See Digest of Significant Classification Decisions & Opinions, Vol. 12 for guidance on titling and selecting a standard for evaluating the Research Agronomist specialization.

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Agronomy Series

GS-0471

CONTENTS

SERIES DEFINITION[1]

This series includes all classes of positions the duties of which involve the performance of professional and scientific work in the field of agronomy, including the application of the fundamental principles of the plant, soil, and related sciences, (and those affecting the water relationships involved) to the improvement, production, management, and utilization of field crops, pasture and cover crops, turf, and related types of vegetation; to soil and crop management; to the development and use of weed controls and plant regulators; and to related fields.

Standards for the Agronomy Series, GS-407-0, were issued in September 1947 under the code of P-408-0. These standards were rescinded in June 1960. The series has now been redefined to reflect a wider range of activities. These new standards reflect the impact of scientific developments in biology, genetics, chemistry, and conservation on the general field of agronomy, the effect of specific developments in agronomy and related fields on the occupation, and the general influence of program changes on positions in this series. Because of the close relationship with the Soil Science Series, GS-470-0, the series has been recoded to GS-471-0.

Standards for research classes at the GS-11 and higher grades are not included in these standards since instructions for the grade level evaluation of such positions appear in the "Guide for Evaluating Positions in Basic and Applied Research," published in June 1960. However, a general discussion of research work and research work situations is included to supplement that Guide.

INCLUSIONS AND EXCLUSIONS

As now defined, the Agronomy Series, GS-471-0, covers a somewhat broader range of work situations than the former standards. Some of the mixed positions, previously classifiable in the Soil Science Series, GS-470-0, are now included in this series, since analyses indicate that this work requires agronomic training.

The work performed in positions in the Soil Science Series, GS-470-0, the Plant Pathology Series, GS-434-0, the Plant Physiology Series, GS-435-0, the Genetics Series, GS-440-0, and the Entomology Series, GS-414-0, often bears a rather close and intimate relationship to the work of agronomists. In fact, the success of any phase of agronomic work often hinges on contributions made in these fields or involves the application of principles, methods, or techniques peculiar to these scientific fields, and the agronomist must apply knowledges from all of these fields.

[1] These standards are based on a draft originally developed by the Soil Conservation Service, U.S. Department of Agriculture, for positions in that agency, as expanded by the Civil Service Commission to cover positions in other agencies and departments.

The relationship between agronomy and soil science is particularly close. Positions classifiable in these two occupational areas can be differentiated on the basis of the approach usually taken in the work. The soil scientist is primarily interested in the identification, classification, and potential use of the soil, whereas the agronomist is primarily interested in crop production and crop management through cultivation, fertilization, and other management practices, including soil management. The soil scientist usually approaches a problem with chemical values, morphology, and similar soil characteristics in mind, while the agronomist is more concerned with the various alternatives used in adapting management practices to meet the needs of particular crops and soils.

Plant physiologists and geneticists play an extremely vital role in agronomic research, particularly where plants are being introduced or established, where the environmental response of plants is a factor, or where the work involves the introduction of new species, breeding, or hybridization. The incumbents of such positions are usually much more interested in determining physiological or genetic relationships than they are in determining the broad agronomic implications of the work.

The entomologist and plant pathologist also play important roles in agronomic work, particularly where insects are involved or where plant diseases are a factor. However, work in these two occupational areas is usually clearly identifiable, for the emphasis is almost always on the entomological or pathological implications and not on agronomic values.

Positions in the Horticulture Series, GS-437-0, can be differentiated from agronomist positions on the basis of the crops handled. The horticulturist is interested in orchard crops, fruits and nuts, vegetable crops, ornamental, etc., whereas the agronomist is interested in field and pasture crops.

The nature of the crop is also significant in differentiating positions in the Forestry Series, GS-460-0, and the Range Conservation Series, GS-454-0 from those in the Agronomy Series. The forester is primarily interested in the production of trees and tree products in their natural state and the range conservationist is primarily interested in the production and management of grasslands under natural conditions, while the agronomist is concerned with the management of cultivated lands and pastures.

The work of an agronomist in a soil and water conservation program closely approaches the work performed in some of the positions classified in the Soil Conservation Series, GS-457-0. The soil conservationist typically works in a line operation, where he must plan and direct an appropriate soil and water conservation program which involves the coordinated planning and application of engineering, agronomic, biotic, woodland, and range conservation practices. The agronomist determines what agronomic methods and practices should be used under given situations, and gives technical guidance and assistance in connection with their use.

Most of the nonprofessional work involving duties similar to that performed by lower grade research agronomists is normally classifiable in the Agricultural Research Technician Series,

GS-425-0. Consult the standards for that series for instructions on differentiating between wage board, technician, and professional research work.

GENERAL DISCUSSION

Agronomy is essentially a very broad applied science dealing with the management and improvement of crops and soils, the production of field crops, and the factors that influence their growth, production, and utilization. In performing their work, agronomists bring to bear the theories, principles, methods, and techniques of a whole range of scientific disciplines in a search to find and develop better crops, better ways of producing these crops, and better ways and means of utilizing these crops. Technologically, agronomy has evolved along lines that parallel those followed in the evolution of engineering, the agronomist depending largely on the contributions of biology, genetics, chemistry, and related sciences, and the engineer depending largely on the contributions of mathematics, physics, and related sciences. The agronomist must keep pace with developments in closely related fields of science, such as plant physiology, plant genetics, plant pathology, entomology, agricultural engineering, agricultural chemistry, conservation, and soil science, since developments in these fields often have important agronomic implications.

Agronomists function as specialists both in research work situations and in field work situations. The research agronomist either works individually or as a member of a team, and the field or applied agronomist works alone as the accepted authority for his assigned area.

Many of the research projects extend over long periods, for the research agronomist must take into consideration such factors as crop cycles, generations of crops, the periods required to stabilize varieties of plants, etc. The field agronomist assimilates this research, integrates it into his store of agronomic knowledge, and modifies, adapts, and applies agronomic practices to fit given situations. The end results of all this work are better, more efficiently produced crops and, accordingly, a more productive agriculture.

A research agronomist accomplishes his purpose by introducing or developing new and promising plants, by selective breeding or hybridization, or by any other kind of research that will help him attain his objectives. This research may involve the finding of better and more effective ways to manage specific crops, and may take into consideration such factors as proper soil, water, and crop management practices in relation to the specific growth requirements of particular crops. It also may involve finding and developing better types of machinery or better ways to cultivate, harvest, and utilize the crops, and, quite often, the development of plant strains which lend themselves to the use of specific types of equipment, e.g., mechanical harvesting, or which enhance the utilization of the crop, e.g., strains having more acceptable flavors or better milling qualities.

The overall objective of the field agronomist is to put sound agronomic ideas into practice, to implement these practices with new ideas, and to develop new methods, procedures, and

techniques which he can apply. In applying his knowledge to specific problems of the agricultural area in which he works, the field agronomist must be sensitive to the probable impact of proposed practices on the general economy of the area, their economic influence on individual growers and producers, and the particular ways these practices need to be applied to further the objectives of his general program. For example, a particular agronomic practice cannot be used where it would cause the producer to lose money or adversely influence the major mission of a program, e.g., a defense program.

An added insight into the occupational characteristics of agronomists can also be obtained by contrasting the way students are trained in soil science and agronomy. Agricultural colleges and universities normally give soils and agronomy courses in the same department, and generally require the students to follow the same curriculum during their first two years, regardless of whether or not they are majoring in agronomy or soils. During the last two years, the soils major concentrates on subjects dealing with the morphology, identification, classification, and potential use of soils, including the physics and chemistry involved, while the agronomy major concentrates on subjects dealing with field crops, crop management, soil and crop management, and soil and water conservation. For this reason, persons normally selected to fill positions where the work is largely concerned with soil management must be thoroughly trained in agronomy. Agronomists must also be thoroughly trained in soils and soil management, for, in one sense, agronomy can be called a science of micro relationships and particularly so when these relationships are found at the level of cultivation (furrow slice and immediately above).

Much of the work in the field of agronomy follows a crop oriented approach, an approach which is traditionally used in academic circles and in the agronomic research activities at the agricultural colleges and universities. While crops generally fall into a generally accepted pattern, based largely on their use and the general practices used in their production, there is no commonly accepted method of grouping field crops. Sometimes they are considered on the basis of the similarity of cultural practices, sometimes on the basis of use, sometimes on the basis of the common characteristics in connection with the management of the crop or for research purposes, and sometimes on the basis of other relationships, e.g., taxonomic relationships. As a general rule, the cereal crops, such as corn, sorghum, wheat, barley, oats, and rice, are considered to fall into a general category. Fiber crops, such as cotton, hemp, flax, etc. fall into another. Tobacco, sugar crops, forage crops, and legumes are usually recognized as separate areas of agronomic work. Usually medicinal, drug, and other special crops are handled together for administrative purposes, yet each may make up a separate category if one considers the specific knowledges pertaining to such crops. For this reason, the crops involved always have a direct implication on the work of agronomists and on their placement and utilization, particularly where the work is of a research or similar nature.

SPECIALIZATIONS AND TITLING

Three specializations are recognized in this series, one for the purpose of identifying the different classes of research positions and two for the purpose of identifying the different classes of positions in the field of applied agronomy.

These specializations are defined as follows:

Research Agronomist. -- The work performed in this specialization is concerned with the carrying out of different types of research activities and the performance of different types of research work in the field of agronomy. Generally speaking, many of these activities and much of this work tend to follow one or two fundamental approaches, one placing emphasis on the breeding and development of plants and the other stressing problems connected with the production of plants. At the same time, the work usually emphasizes problems peculiar to a particular crop, e.g., corn, tobacco, sugar crops, etc., or a specific type of approach, e.g., a genetic approach, certain general production techniques, etc. On the other hand, there are some areas of research where the work tends to specialize along particular lines that do not necessarily follow either of the two general approaches indicated. This would include soil and crop management; pasture establishment and maintenance; the development, use, and specific application of weed controls and plant regulators; etc. (See Digest Vol. 12 for guidance on evaluating reseach positions in these more specialized areas.)

As defined in these standards, the Research Agronomist specialization is a broad specialization covering a number of work situations and a number of areas of agronomic research. In theory, any of these might well be used as the basis for establishing additional classes of agronomist positions. However, since this is a small occupation, such a refined system of classification does not appear to be necessary, provided judgment is used in analyzing the requirements of different kinds of these positions to see that they are filled with agronomists who have the knowledges, skills, and professional abilities needed to perform the type of research work involved. In making this analysis, particular attention should be paid to the general approach taken, the crop or crops involved, the techniques used, and the specific area or areas of agronomic research indicated. These factors may also have some bearing on the grade-level of the position at the GS-11 and higher grades and should be considered in connection with the use of the "Guide for Evaluating Positions in Basic and Applied Research."

Management Agronomist.[2] -- The work in this specialization is concerned primarily with the establishment and maintenance of ground cover, lawns, turf, and related types of vegetation on specific areas used for other purposes, e.g., defense establishments, training areas, etc. The work involves the application of a considerable number of agronomic practices and the application of specific soil management and agronomic knowledges. While the major portion of the work is

[2]Management agronomist positions are typically located in military organizations.

concerned with the application of sound agronomic practices, it may also involve the application of forestry, soil conservation, and horticultural practices, since professional assistance in these areas is not always available.

Conservation Agronomist. -- In this specialization, the work is performed to provide adequate staff support in the carrying out of the soil and water conservation programs of the Federal service. This involves the development and adaptation of agronomic principles and techniques for different kinds of soils on irrigated and non-irrigated crop and pasture lands and critical erosion areas as they relate to soil and water conservation planning. The range of assignments in this specialization is broad and involves the conservation use of any of the crops which may be grown in a particular vegetative resource area. The assignments require the determination of soil, water, and crop relationships for the area, and the assessment of specific conservation problems, including the making of necessary field trials where this is required.

APPLICATION OF GRADE-LEVEL CRITERIA

The specific examples and the grade-level criteria presented in these standards are descriptive and not restrictive, and should be interpreted as being generally illustrative of the levels.

Generally speaking, much of the work of agronomists at the higher grade levels is performed in work situations where the qualifications of the incumbent and the way in which he discharges his responsibilities may have an important impact on job content and therefore on grade-level determination. For example, the criteria outlined in these standards for conservation agronomist positions at each grade-level are designed to reflect the normal range of problems encountered in a given type of geographic area. However, the criteria outlined in these standards may not fully recognize an agronomist's contributions to the success of the agronomic and conservation programs in a particular area. In this kind of work situation, a particularly well-qualified agronomist may perform in such a manner as to broaden the scope of his responsibility as demonstrated by an unusually heavy impact on programs of the geographic area. Thus, it may be found that he is performing work at a higher grade-level than would be typical for that area. Conversely, an individual who (because of relatively weak qualifications) is not performing the full range of duties outlined for positions in a certain type of geographic area may be found to be working at a lower grade-level.

Absence of class descriptions above GS-13 does not preclude allocation at higher grades where indicated by a comparison with the specific grade-level criteria indicated for the GS-13 classes.

AGRONOMIST, GS-0471-5

Characteristics of the classes:

Positions in these classes (1) represent the lowest level of professional agronomic work, and (2) are typical entrance or trainee level professional positions.

Nature and variety of work. -- The work performed at this level is limited in scope and complexity and usually is performed for the purpose of orienting new employees in the organization, so they will gain a grasp of its policies, programs, and procedures; training and developing the employees so they can perform more responsible work; and assessing their potential so they can be placed properly in future assignments.

Examples of typical assignments at this level are:

A. Performing a variety of duties in connection with the carrying out of the agronomic phases of a soil and water conservation program, such as accompanying soil conservationists to farms to observe farming practices and learn the place of agronomy in the complete soil and water conservation program; becoming familiar with local plants, soils, climate, topography, soil and water conservation programs, and agronomic practices applicable to the area to which assigned; attending meetings to observe community reactions and to learn how to deal with the community conservation problems; and collecting information regarding current agronomic practices.

B. Assisting a higher graded plant scientist in his research by performing a variety of duties in connection with an established long-range research project, such as helping in propagation experiments; preparing seeding plots; treating seed, planting, and caring for plants; applying specific fertilizers, sprays, cultural practices, and water as required by the experiment; harvesting, cleaning, and storing the seeds; observing plants for performance, adaptation, and incidence of disease; keeping specific notes and records on the experiments; and reporting on observations.

Qualifications statement:

Knowledges, abilities, and other qualities:

Sound fundamental professional training in the general principles and theories of the biological sciences (including botany, plant physiology, plant pathology, and plant genetics), agricultural chemistry, and agricultural engineering, and in the specific principles and theories of soil science and agronomy; a demonstrated aptitude for acquiring a working knowledge of the scientific methods, techniques, and procedures peculiar to soil sciences and agronomy; and a demonstrated aptitude for acquiring a general working knowledge of the theories, principles, methods, and techniques of related agricultural and applied sciences that are applied in agronomic work.

Ability to make close observations, handle agronomic and farming equipment, and express himself orally and in writing.

Physical stamina required to work outdoors.

AGRONOMIST, GS-0471-07

Characteristics of the classes:

Positions in these classes are characterized by (1) the performance of a limited amount of increasingly difficult, professional agronomic work, and (2) the use of a limited amount of professional judgment.

Nature and variety of the work. -- The work performed at this level usually involves a variety of assignments, or a minor phase of a broad assignment, the independent performance of routine agronomic work where the methods, techniques, and procedures used are established, and an increasing range of duties which are generally limited in scope, difficulty, and complexity.

Illustrative examples of typical work situations at this level are:

A. Agronomist GS-7 assigned to a moderately large military installation which has a continuing, but not critical, problem in connection with its land management, erosion control, and landscape management programs. The agronomist at this installation assists his supervisor, typically an engineer, in developing, recommending and carrying out a coordinated land management and erosion control program for the installation.

B. Agronomist GS-7 working under the general supervision of an area conservationist and the technical supervision of a higher graded agronomist, assigned to assist in carrying out the agronomic work of adjoining conservation work units. In performing his work, the agronomist assists the soil conservationists in developing farm plans for soil and water conservation purposes; participates directly in the development of specific farm plans and in the application of these plans by helping farmers or ranchers apply particular agronomic measures, techniques, and procedures; participates in local meetings along with his supervisor, for the purpose of developing coordinated plans in connection with the work of local agricultural agencies or groups; and collects information and makes and records observations on local situations, field trials, and evaluations for the use of his supervisor.

c. Agronomist GS-7, working under the immediate supervision of a higher graded research scientist, assigned to a small field project established in connection with the crop production research on a newly developed variety of wheat which shows promising rust resistant characteristics. The purpose of the research is to study these characteristics under field conditions and to select the most promising plans for further development. In performing his duties, the agronomist collects and reviews the literature on the subject, including previous unpublished studies; recommends plans and general techniques to be used; schedules the dates of observation, surveys, or tests; compiles and analyzes the data; suggests changes in plans; and helps prepare the scientific reports on the project.

Qualifications statement:

Knowledges, abilities, and other qualities:

In addition to the fundamental training in general principles of agronomy, soil science, and the related sciences, and the abilities described for the GS-5 classes, the work at this level requires some working knowledge of agronomy and soil science and the ability to recognize critical problems of an agronomic nature, make pertinent observations, and draw tentative conclusions as to the cause of these.

MANAGEMENT AGRONOMIST, GS-0471-09
CONSERVATION AGRONOMIST, GS-0417-09
RESEARCH AGRONOMIST, GS-0471-09

Characteristics of the classes:

Positions in these classes are characterized by (1) the performance of difficult professional agronomic work, and (2) the use of professional judgment in a generally limited area of applied agronomy, or in a restricted area of research.

Nature and variety of the work. -- The work performed at this level can be distinguished from that performed at the GS-7 level by the broader range and greater complexity of assignments, greater independence of action, increased responsibility for technical decisions, and the increased technical competence required.

Illustrative examples of typical work situations at this level are:

A. Management Agronomist GS-9 assigned to an operating air base with about half of the area being covered by trees, other natural vegetation or water, and about half of the area by the base buildings, runways, or operational areas. Much of the area covered by vegetation and water has a high recreational value which needs to be developed. The agronomist acts in a staff capacity for the purpose of giving advisory service on agronomic requirements and on all phases of the installation's land management programs, including the land management plan, grounds maintenance plan, landscape development, improvement, and planting plans, forestry and woodland management plan, and the fire prevention plan. In general, the work does not involve especially critical agronomic problems.

B. Conservation Agronomist GS-9 assigned to an administrative area (10-12 work units) to provide technical guidance for soil conservationists in developing the agronomic part of the soil and water conservation plans for individual farmers and ranchers. This work includes developing and recommending specific agronomic specifications under established soil and water conservation standards; inspecting the agronomic practices to see that they meet these

specifications; assembling information on conservation practices and benefits for use in determining their values; assisting the soil conservation staff in applying and maintaining planned agronomic phases of the overall programs; working with the staff in evaluating and emphasizing sound agronomic practices; developing training material and training the staff; and working with local farm groups, organizations, representatives of the State Extension Service, and others to obtain and develop agronomic information.

C. Research Agronomist GS-9 assigned the problem of breeding for several improved characteristics in a specific variety of a given crop. The problem is considered to be limited in scope and difficulty and requires the application of well-established breeding methods and concepts. In performing his work, the research agronomist is required to review and keep up to date on the literature in his subject-matter area, and particularly that which has any bearing on his project; to develop and recommend work plans for his project; to set up and carry out the field experiment, after it has been approved by his supervisor; to record pertinent data on the research; and to analyze, interpret, and prepare a general report on the results of his research.

Characteristic of this level is the originality required to perform much of the work, and the responsibility for making decisions and recommendations in a somewhat restricted area of agronomy. In applied agronomy, person-to-person relationships are particularly important at this level.

Qualifications statement:

Knowledges, abilities and other qualifications:

In addition to the fundamental training and experience in applying the general theories, principles, methods, and techniques which underlie agronomy and soil science, and the general working knowledge of the principles, methods, and techniques of the related sciences required at the GS-7 level, the work at this level requires the ability to solve problems by applying, modifying, or developing methods, techniques, and procedures and the ability to exercise a high degree of judgment.

Ability to make and interpret close observations and to prepare scientific reports for technical, administrative, and scientific use.

In addition to the basic requirements listed above, conservation agronomists must also have demonstrated their ability to work effectively with farm groups in critical situations; and their ability to develop and establish economically sound agronomic practices for use in farm plans covering a variety of situations.

In addition to the basic requirements listed above, research agronomists must have a good general knowledge of the theories, principles, methods and techniques used in (their specific fields of) agronomic research; the ability to apply these theories, principles, methods, and techniques to agronomic problems effectively; the ability to make accurate and valid scientific observations, assemble and interpret scientific data, and make reliable scientific reports on the basis of the data.

MANAGEMENT AGRONOMIST, GS-0417-11
CONSERVATION AGRONOMIST, GS-0471-11
RESEARCH AGRONOMIST, GS-0471-11[3]

Characteristics of the classes:

Positions in these classes are characterized by (1) the performance of difficult and responsible work, and (2) the exercise of mature professional judgment on a typical range of varying agronomic problems.

Nature and variety of the work. -- The work performed at this level is difficult and complex and is concerned with a full range of agronomic assignments, involving a number of crops, for the applied agronomist working in these classes is expected to handle the day-to-day problems in his area. Assignments at this level can be distinguished from those typically performed at the GS-9 grade by the marked increase in technical responsibility, the larger number of difficult and complex problems, and the higher degree of professional and technical competence required to perform the work.

Illustrative examples of typical work situations at this level are:

A. A Management Agronomist GS-11 assigned to a large, fully operational defense installation, consisting of a parent air base and several additional areas in an area of low rainfall where there is a serious wind erosion problem, creating an operational hazard for aircraft and generally damaging housing areas, technical facilities, equipment and other property required to carry out the mission of the installation.

   In this assignment, the agronomist has the responsibility for providing technical advice and services in the development and operation of the landscape development and maintenance plans, and the land management plans, including the maintenance, conservation, soil erosion, irrigation, improvement, and related plans.

[3]Class descriptions are not included. See instructions in "Guide for Evaluating Positions in Basic and Applied Research."

B. A Conservation Agronomist GS-11 assigned as a staff specialist for 2-3 Administrative Areas (e.g., 16-30 work units) depending upon the intensity of the agronomic problems. He furnishes technical staff guidance and coordination for the agronomic phases of the soil and water conservation program to soil conservationists in developing conservation plans for crop and pasture land which will insure a balanced soil and water conservation program. He (a) recommends required agronomic phases and develops specifications for agronomic practices which meet established standards; (b) makes recommendations for and participates in agronomic functional inspections; (c) evaluates application of agronomic specifications and develops and recommends needed changes; (d) develops specifications for soil conservationists in planning and applying agronomic phases of watershed activities; (e) establishes and conducts field trials relating to soil and crop management, observes results, and makes preliminary evaluations and recommendations; (f) develops agronomic specifications for contracts in programs involving the expenditure of federal funds; (g) assembles and evaluates agronomic information for use in establishing economic values and effectiveness for use in the development of the agronomic phases of the State soil and water conservation program; (h) develops material and gives agronomy training to other field personnel; (i) serves as a member of the staff of these areas and participates in developing agronomic objectives and as the contact with specialists of other federal and State agencies to discuss and adapt new agronomic information.

The amount of originality required to adapt, modify and develop methods, techniques, and procedures, develop and apply plants, and generally perform the work is high at this level, as is the impact of the technical decisions, recommendations, and conclusions made in connection with the work. Some person-to-person relationships are critical, in the sense that the farmers or ranchers are persuaded to apply appropriate agronomic practice and the success of the program may depend upon how well this is done. Other contacts are with research centers to keep abreast of current developments, and with radio stations and other news outlets to furnish information on program plans and accomplishments.

Qualifications statement:

Knowledges, abilities, and other qualities:

The work at this level requires a broad, professional working knowledge of the theories, principles, methods, and techniques which underlie agronomy and soil science; a current and up-to-date working knowledge of agronomy and soil science; and a thorough working knowledge of the scientific principles, methods, and techniques of the related disciplines of science that are applied in agronomic work. The work at this level also requires demonstrated ability to recognize

a substantial range of critical problems of an agronomic nature, and demonstrated ability to draw conclusions as to their cause, impact, and possible solution; demonstrated ability in arriving at sound solutions to agronomic problems; demonstrated ability in developing, modifying, and adapting methods and techniques to fit specific situations; and demonstrated ability in exercising mature, professional judgment.

As required, demonstrated ability in working effectively with farm groups in critical situations, and demonstrated ability in developing, establishing, and applying economically feasible and agronomically sound farm plans to fit a variety of situations.

Ability to make and interpret close observations and to prepare reports for technical, administrative, and scientific use, and the ability to make oral presentations before groups.

MANAGEMENT AGRONOMIST, GS-0471-12
CONSERVATION AGRONOMIST, GS-0471-12
RESEARCH AGRONOMIST, GS-0471-12[4]

Characteristics of the classes:

Positions in these classes are characterized by (1) the performance of markedly difficult and highly responsible agronomic work, and (2) the responsibility for providing technical guidance and leadership in the carrying out of a substantial agronomic program.

Nature and variety of the work. -- The work performed at this level involves a wide range of very difficult and complex agronomic assignments, typically covering a large and important agricultural area, such as a major agronomic area of a large agricultural State. In some situations, the work may involve the carrying out of an important agronomic function for a large organization, such as the command level in a military organization or an important segment of a land management agency. The agronomic implications of the work characteristically cover a much wider area and are generally more complex than those typically found at the next lower grade.

Illustrative examples of typical work situations at this level are:

A. A management agronomist assigned to the headquarters of a major military command for the purpose of providing assistance in coordinating the land management phases of programs of the command. The agronomist works under the technical supervision of a higher grade agronomist, assigned to the same headquarters, but is considered to be the technical specialist

[4]Class descriptions are not included. See instructions in "Guide for Evaluating Positions in Basic and Applied Research."

in several areas of the land management program and is expected to carry out his function with a minimum amount of supervision.

B. A Conservation Agronomist GS-12 assigned as a staff specialist in a soil and water conservation agency for the purpose of furnishing technical staff guidance and coordination to the agronomic phases of the soil and water conservation program in a major portion of a State, or all of a State, depending upon the intensity of the problems. Difficult agronomic problems involve extensive areas, such as (a) water erosion, wind erosion, and moisture conservation problems requiring a wide range of cultural, management, and mechanical practices to provide protection; (b) extensive arid, semi-arid, or droughty farm land conditions which restrict the establishment, growth, and culture of crops; (c) a variety of kinds of soils, including soils in poor physical condition and/or low in fertility, that increases the difficulty of solving agronomic problems; (d) extremes of economic conditions such as marginal or sub-marginal lands and/or a wide range of specialty crops, such as tobacco, fruits and vegetables; (e) significant flood prevention or watershed protection programs with a wide range of soils and climatic conditions complicating accelerated planting and management of crops for stabilization purposes.

Qualifications statement:

Knowledges, abilities, and other qualities:

The knowledges, abilities, and other qualities described for the GS-11 grade are also required at this level.

In addition, incumbents of positions at this level must have a marked ability to plan, organize, and carry out a large and complex technical program designed to provide the necessary agronomic staff services for a large operating organization; and the ability to work closely and effectively with others in providing these services, and in interchanging technical information with other interested agencies, State organizations, colleges and universities, and various individuals interested in the program.

Conservation agronomists at this level must also have a recognized and demonstrated ability in dealing with farm groups, other professionally trained workers, and administrative officials of various agencies interested in soil and water conservation.

MANAGEMENT AGRONOMIST, GS-0471-13
CONSERVATION AGRONOMIST, GS-0471-13
RESEARCH AGRONOMIST, GS-0471-13 [5]

Characteristics of the classes:

Positions in these classes are characterized by the performance of unusually difficult agronomic work which involves responsibility for providing technical guidance and leadership for a substantial segment of a national conservation or land management program.

Nature and variety of the work. -- The work performed at this level is usually concerned with either (1) the total range of agronomic problems found in conservation area made up of two or more States, or (2) the total range of agronomic and related problems in a land management program, such as that developed at the major command or technical service level in a military organization.

Illustrative examples of work situations found at this level are:

A. Management agronomist stationed at the headquarters of a major military command, where he has the full technical responsibility for the planning, development, and general execution of intensive agronomic and related programs in the command. The agronomist coordinates the various agronomic and related plans developed at the different installations in the command, develops the overall plans for the command, and integrates these with the ones developed for the service at large. Periodic inspections are made to see that installation programs meet command and service standards, and appropriate technical information is issued to the installations to meet their specific needs.

B. A Conservation Agronomist GS-13 assigned as a staff specialist for a broad geographical area (e.g., 2-3 States) representing a major segment of an important agricultural region. He furnishes technical staff guidance and coordination to the agronomic phases of the soil and water conservation programs and is responsible for seeing that the agronomic activities are properly coordinated and geared to meet the economic and specific needs of the farmers, in addition to promoting sound soil and water conservation practices. In providing staff guidance to the States, he visits problem areas to advise and counsel on broad and specific problems, to conduct reviews of agronomic activities for adherence to Service policies and sound soil and water conservation, to arrange for field trials on problems affecting the agricultural region. He participates with other agronomists outside and inside the agency in

[5]Class descriptions are not included. See instructions in "Guide for Evaluating Positions in Basic and Applied Research."

joint studies to obtain information for program planning, coordination, and mutual efforts to resolve common problems; reviews proposed specifications for adherence to agency standards. As technical authority for conservation agronomy in his assigned area, at this level, he works continuously with representatives of other agencies, other technical authorities and scientists, and various organizations, scientific societies, and individuals interested in agriculture.

Qualifications statement:

Knowledges, abilities, and other qualities:

The knowledges, abilities, and other qualities described at the GS-12 grade are also required at this level.

In addition, agronomists at this level must possess the ability to plan, organize, and direct a substantial agronomic program designed to provide adequate technical services for a larger operating program; and must show marked ability in dealing with others on technical and administrative matters.